

1. A computer-implemented method for generating a form including one or more data fields, the method comprising:
  - defining zoning information identifying a location of the one or more data fields of
  - 5 the form;
  - defining structural information about the one or more data fields;
  - encoding the zoning and structural information according to a symbology defined by rules for encoding information in a medium in which the form will be presented; and
  - incorporating the encoded zoning and structural information in a representation of the
  - 10 form to be presented in the medium.
2. The method of claim 1, wherein the medium is a visual medium and encoding includes encoding the zoning and structural information in a graphical symbol.
3. The method of claim 2, wherein the graphical symbol is a two-dimensional symbol.
4. The method of claim 3, wherein the two-dimensional symbol is a two-dimensional
- 15 barcode.
5. The method of claim 1, wherein the medium is an audio medium and encoding includes encoding the zoning and structural information in an audio signal.
6. The method of claim 1, wherein encoding the zoning and structural information includes generating an XML representation of the zoning and structural information and
- 20 encoding the XML representation according to the symbology.
7. The method of claim 1, wherein the medium is a visual medium and the zoning information includes two-dimensional coordinates specifying a location of each of the one or more data fields and corresponding measurements in two dimensions of each of the one or more data fields.
- 25 8. The method of claim 1, wherein the medium is an audio medium and the zoning information includes a temporal location of each of the one or more data fields in an audio recording and temporal dimensions of each of the one or more data fields.

9. The method of claim 1, wherein the structural information includes a name for each of the one or more data fields.
10. The method of claim 1, wherein the structural information includes a description of user data expected to be filled in each of the one or more data fields.
- 5 11. The method of claim 1, wherein data entered on the form by a user can be extracted from the representation based on the encoded zoning and structural information without access to a source of zoning or structural information external to the form.
12. A computer-implemented method for creating a form including one or more data fields, the method comprising:
- 10 generating a form definition defining the form, the form definition including zoning information identifying a location of the one or more data fields and structural information about the one or more data fields;
- encoding the zoning and structural information according to a symbology defined by rules for encoding information in a medium in which the form will be presented; and
- 15 incorporating the encoded zoning and structural information in a representation of the form to be presented in the medium;
- wherein data entered on the form by a user can be extracted from the representation based on the encoded zoning and structural information without access to a source of zoning or structural information external to the form.
- 20 13. A computer-implemented method comprising:
- receiving an electronic representation of a form including user data associated with one or more data fields, the form incorporating zoning information identifying a location of the one or more data fields and structural information about the one or more data fields, the zoning and structural information encoded according to a symbology defined by rules for
- 25 encoding information in a medium in which the form is presented to a user;
- decoding the zoning and structural information; and
- extracting the user data from the electronic representation of the form using the decoded zoning and structural information without access to a source of zoning or structural information external to the electronic representation of the form.

14. The method of claim 13, wherein the medium is a visual medium and the electronic representation of the form comprises a PDF file.

15. The method of claim 13, wherein the medium is a visual medium and the electronic representation of the form comprises a TIFF file.

5 16. The method of claim 13, wherein the medium is an audio medium and the electronic representation of the form comprises a digital audio file.

17. The method of claim 13, wherein the medium is a visual medium and the encoded zoning and structural information comprises a graphical symbol.

18. The method of claim 17, wherein the graphical symbol is a two-dimensional symbol.

10 19. The method of claim 18, wherein the two-dimensional symbol is a two-dimensional barcode.

20. The method of claim 13, wherein the medium is an audio medium and the encoded zoning and structural information comprises an audio signal.

15 21. The method of claim 13, wherein the zoning and structural information is represented in XML.

22. A computer-implemented method for creating a form including one or more data fields, the method comprising:

generating a form definition defining the form, the form definition including zoning information identifying a location of the one or more data fields;

20 encoding the zoning information according to a symbology defined by rules for encoding information in a medium in which the form will be presented; and

incorporating the encoded zoning information in a representation of the form to be presented in the medium;

25 wherein data entered on the form by a user can be extracted from the representation based on the encoded zoning information without access to a source of zoning information external to the form.

23. A computer-implemented method for creating a form including one or more data fields, the method comprising:

generating a form definition defining the form, the form definition including an XML representation of zoning information identifying a location of the one or more data fields and structural information about the one or more data fields;

encoding the XML representation of the zoning and structural information according to a two-dimensional symbology defined by rules for encoding information in a visual medium in which the form will be presented; and

incorporating the encoded zoning and structural information in a visual representation of the form;

wherein data entered on the form by a user can be extracted from the representation based on the encoded zoning and structural information without access to a source of zoning and structural information external to the form.

24. A computer program product, tangibly stored on a computer-readable medium, for generating a form including one or more data fields, comprising instructions operable to cause a programmable processor to:

define zoning information identifying a location of the one or more data fields of the form;

define structural information about the one or more data fields ;

encode the zoning and structural information according to a symbology defined by rules for encoding information in a medium in which the form will be presented; and

incorporate the encoded zoning and structural information in a representation of the form to be presented in the medium.

25. The computer program product of claim 24, wherein the medium is a visual medium and instructions operable to encode include instructions operable to encode the zoning and structural information in a graphical symbol.

26. The computer program product of claim 25, wherein the symbol is a two-dimensional symbol.

27. The computer program product of claim 26, wherein the two-dimensional symbol is a two-dimensional barcode.
28. The computer program product of claim 24, wherein the medium is an audio medium and instructions operable to encode include instructions operable to encode the zoning and structural information in an audio signal.
29. The computer program product of claim 24, wherein instructions operable to encode the zoning and structural information include instructions operable to generate an XML representation of the zoning and structural information and encode the XML representation according to the symbology.
30. The computer program product of claim 24, wherein the medium is a visual medium and the zoning information includes two-dimensional coordinates specifying a location of each of the one or more data fields and corresponding measurements in two dimensions of each of the one or more data fields.
31. The computer program product of claim 24, wherein the medium is an audio medium and the zoning information includes a temporal location of each of the one or more data fields in an audio recording and temporal dimensions of each of the one or more data fields.
32. The computer program product of claim 24, wherein the structural information includes a name for each of the one or more data fields.
33. The computer program product of claim 24, wherein the structural information includes a description of user data expected to be filled in each of the one or more data fields.
34. The computer program product of claim 24, wherein data entered on the form by a user can be extracted from the representation based on the encoded zoning and structural information without access to a source of zoning or structural information external to the form.
35. A computer program product, tangibly stored on a computer-readable medium, for creating a form including one or more data fields, comprising instructions operable to cause a programmable processor to:

generate a form definition defining the form, the form definition including zoning information identifying a location of the one or more data fields and structural information about the one or more data fields;

5        encode the zoning and structural information according to a symbology defined by rules for encoding information in a medium in which the form will be presented; and

incorporate the encoded zoning and structural information in a representation of the form to be presented in the medium;

10        wherein data entered on the form by a user can be extracted from the representation based on the encoded zoning and structural information without access to a source of zoning or structural information external to the form.

36.     A computer program product, tangibly stored on a computer-readable medium, comprising instructions operable to cause a programmable processor to:

15        receive an electronic representation of a form including user data associated with one or more data fields, the form incorporating zoning information identifying a location of the one or more data fields and structural information about the one or more data fields, the zoning and structural information encoded according to a symbology defined by rules for encoding information in a medium in which the form is presented to a user;

decode the zoning and structural information; and

20        extract the user data from the electronic representation of the form using the decoded zoning and structural information without access to a source of zoning or structural information external to the electronic representation of the form.

37.     The computer program product of claim 36, wherein the medium is a visual medium and the electronic representation of the form comprises a PDF file.

38.     The computer program product of claim 36, wherein the medium is a visual medium  
25        and the electronic representation of the form comprises a TIFF file.

39.     The computer program product of claim 36, wherein the medium is an audio medium and the electronic representation of the form comprises a digital audio file.

40.     The computer program product of claim 36, wherein the medium is a visual medium and the encoded zoning and structural information comprises a graphical symbol.

41. The computer program product of claim 40, wherein the graphical symbol is a two-dimensional symbol.
42. The computer program product of claim 41, wherein the two-dimensional symbol is a two-dimensional barcode.
- 5 43. The computer program product of claim 36, wherein the medium is an audio medium and the encoded zoning and structural information comprises an audio signal.
44. The computer program product of claim 36, wherein the zoning and structural information is represented in XML.
- 10 45. A computer program product, tangibly stored on a computer-readable medium, for creating a form including one or more data fields, comprising instructions operable to cause a programmable processor to:
- generate a form definition defining the form, the form definition including zoning information identifying a location of the one or more data fields;
  - 15 encode the zoning information according to a symbology defined by rules for encoding information in a medium in which the form will be presented; and
  - incorporate the encoded zoning information in a representation of the form to be presented in the medium;
  - wherein data entered on the form by a user can be extracted from the representation based on the encoded zoning information without access to a source of zoning information external to the form.
- 20 46. A computer program product, tangibly stored on a computer-readable medium, for creating a form including one or more data fields, comprising instructions operable to cause a programmable processor to:
- 25 generate a form definition defining the form, the form definition including an XML representation of zoning information identifying a location of the one or more data fields and structural information about the one or more data fields;
  - encode the XML representation of the zoning and structural information according to a two-dimensional symbology defined by rules for encoding information in a visual medium in which the form will be presented; and

incorporate the encoded zoning and structural information in a visual representation of the form;

wherein data entered on the form by a user can be extracted from the representation based on the encoded zoning and structural information without access to a source of zoning  
5 and structural information external to the form.